Subject: TURTLE alpha status
Posted by mirek on Mon, 03 Feb 2014 19:25:18 GMT
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Turtle is a thin HTML5/Javascript client / U++ rainbow backend.

Today I have moved Turtle to 'canonical' uppsrc and made TURTLE flag work.

There is also a new reference example, "WebWord", which could serve as recipe how you to convert regular U++ application into HTML5 based one.

There is a lot of work remaining, but I think it is quite usable already.

Enjoy,

Mirek

Subject: Re: TURTLE alpha status
Posted by Didier on Mon, 03 Feb 2014 22:10:24 GMT
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Hi Mirek,

You're turtle package is great : I added a GraphCtrl to WebWord just for a simple test and it worked out of the box with svn.6827

But when I try to make my own Turtle application (today with lattest svn) : everything compiles well ... but when I launch it, it's WebWord who gets launched ???.
I only managed to launch my app once and I even got a TheIde launched (without ever making a turtle theide !!!).

Something seems to be unstable or memorized in the build or launch process but I have no idea what
I also noticed that since todays svn release mouse management seems to have changed : with svn.6827 GraphCtrl worked fine, now, my Firefox promps me for stopping the script (which does not end when mouse comes over GraphCtrl)

I will try to recompile TheIde and do some more testing

NB: I am testing on Fedora 19

Here are the modifications I made to WebWord to do my test

struct UWord : public TopWindow {
public:

```cpp
    virtual void DragAndDrop(Point, PasteClip& d);
    virtual void FrameDragAndDrop(Point, PasteClip& d);

    virtual void ShutdownWindow();

    RichEdit   editor;
    MenuBar    menubar;
    ToolBar    toolbar;
    StatusBar  statusbar;
    String     filename;
    XYY2LT_GraphCtrl  graph;     // ***************Line added *****************

    int64      sent_prev;

    static LRUList& lrufile() { static LRUList l; return l; }

    void Load(const String& filename);
    void OpenFile(const String& fn);
    void New();
    void Open();
    void Save0();
    void Save();
    void SaveAs();
    void Print();
    void Pdf();
    void About();
    void Destroy(bool shutdown);
    void SetBar();
    void FileBar(Bar& bar);
    void AboutMenu(Bar& bar);
    void MainMenu(Bar& bar);
    void MainBar(Bar& bar);

    void ShowInfo();

public:
    typedef UWord CLASSNAME;

    static void SerializeApp(Stream& s);

    UWord();
};


UWord::UWord()
{
    AddFrame(menubar);
```

```
 AddFrame(TopSeparatorFrame());
 AddFrame(toolbar);
 AddFrame(statusbar);
 //Add(editor.SizePos());  // *********** line modified
 Add(graph.SizePos());     // *********** line added
 menubar.Set(THISBACK(MainMenu));
 Sizeable().Zoomable();
 WhenClose = THISBACK1(Destroy, false);
 menubar.WhenHelp = toolbar.WhenHelp = statusbar;
 static int doc;
 Title(Format("Document%d", ++doc));
 Icon(CtrlImg::File());
 editor.ClearModify();
 SetBar();
 editor.WhenRefreshBar = THISBACK(SetBar);
 OpenMain();
 ActiveFocus(graph);

 SetTimeCallback(-1000, THISBACK(ShowInfo));
 sent_prev = 0;
}
```

Subject: Re: TURTLE alpha status
Posted by mirek on Tue, 04 Feb 2014 06:48:51 GMT
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Thanks for reporting, obviously things will take some time to mature...

Didier wrote on Mon, 03 February 2014 17:10
with svn.6827 GraphCtrl worked fine, now, my Firefox promps me for stopping the script (which does not end when mouse comes over GraphCtrl)

This one already spotted and fixed... (in today's svn)

Mirek

Subject: Re: TURTLE alpha status
Posted by Tom1 on Tue, 04 Feb 2014 08:47:45 GMT
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Hi Mirek,

I tried to compile the Reference/WebWord on Windows MSC9. Here are the issues and the solutions for them to make it work on Windows:

1. The following declaration is missing in WebWord.h but still referenced in ShowInfo:

int64   sent_prev;

2. The compiler goes nuts about this in Core/Gtypes.h:

```
#ifdef PLATFORM_WIN32
 operator const RECT*() const { ASSERT(sizeof(*this) == sizeof(RECT)); return (RECT*)this; }
 operator RECT*()            { ASSERT(sizeof(*this) == sizeof(RECT)); return (RECT*)this; }
 operator RECT&()            { ASSERT(sizeof(*this) == sizeof(RECT)); return *(RECT*)this; }
 operator RECT() const       { RECT r; r.top = top; r.bottom = bottom;
          r.left = left; r.right = right; return r; }
 Rect_(const RECT& rc)       { Set((T)rc.left, (T)rc.top, (T)rc.right, (T)rc.bottom); }
#endif
```


Commenting it out removes the problem, but is hardly the solution to use. (Should it be conditioned with "&& !PLATFORM_TURTLE" ?)

3. Finally when linking I get:

Linking...
FT_fontsys.lib(FT_fontsys.obj) : error LNK2005: "void __cdecl Upp::GetStdFontSys(class Upp::String &,int &)" (?GetStdFontSys@Upp@@YAXAAVString@1@AAH@Z) already defined in Draw.lib(FontWin32.obj)
FT_fontsys.lib(FT_fontsys.obj) : error LNK2005: "class Upp::String __cdecl Upp::GetFontDataSys(class Upp::Font)" (?GetFontDataSys@Upp@@YA?AVString@1@VFont@1@@Z) already defined in Draw.lib(FontWin32.obj)
FT_fontsys.lib(FT_fontsys.obj) : error LNK2005: "class Upp::Vector<struct Upp::FaceInfo> __cdecl Upp::GetAllFacesSys(void)" (?GetAllFacesSys@Upp@@YA?AV?$Vector@UFaceInfo@Upp@@@1@XZ) already defined in Draw.lib(FontWin32.obj)
FT_fontsys.lib(FT_fontsys.obj) : error LNK2005: "struct Upp::CommonFontInfo __cdecl Upp::GetFontInfoSys(class Upp::Font)" (?GetFontInfoSys@Upp@@YA?AUCommonFontInfo@1@VFont@1@@Z) already defined in Draw.lib(FontWin32.obj)
FT_fontsys.lib(FT_fontsys.obj) : error LNK2005: "struct Upp::GlyphInfo __cdecl Upp::GetGlyphInfoSys(class Upp::Font,int)" (?GetGlyphInfoSys@Upp@@YA?AUGlyphInfo@1@VFont@1@H@Z) already defined in Draw.lib(FontWin32.obj)
FT_fontsys.lib(FT_fontsys.obj) : error LNK2005: "void __cdecl Upp::RenderCharacterSys(struct Upp::FontGlyphConsumer &,double,double,int,class Upp::Font)" (?RenderCharacterSys@Upp@@YAXAAUFontGlyphConsumer@1@NNHVFont@1@@Z) already defined

in Draw.lib(FontWin32.obj)
C:\upp-svn\out\reference\MSC9.Turtle\WebWord.exe : fatal error LNK1169: one or more multiply
defined symbols found

To fix this, the package dependency in WebWord to plugin/DroidFonts needs to be conditionalized
with When: TURTLE && !WIN32.

The last one can be solved by moving:

extern StaticRect& DesktopRect();

outside of the bool Ctrl::StartSession() function in Turtle/Server.cpp.

--

The WebWord then compiles, links and runs just fine on Windows (for one client session:).

Best regards,

Tom

Subject: Re: TURTLE alpha status
Posted by Tom1 on Tue, 04 Feb 2014 10:33:11 GMT

Hi,

Yes, it seems we need:


```
#if defined(PLATFORM_WIN32)
 #ifndef flagTURTLE
  operator const RECT*() const { ASSERT(sizeof(*this) == sizeof(RECT)); return (RECT*)this; }
  operator RECT*()            { ASSERT(sizeof(*this) == sizeof(RECT)); return (RECT*)this; }
  operator RECT&()            { ASSERT(sizeof(*this) == sizeof(RECT)); return *(RECT*)this; }
  operator RECT() const       { RECT r; r.top = top; r.bottom = bottom;
          r.left = left; r.right = right; return r; }
  Rect_(const RECT& rc)       { Set((T)rc.left, (T)rc.top, (T)rc.right, (T)rc.bottom); }
 #endif
#endif
```


or something similar in Core/Gtypes.h.

Best regards,

Tom

Subject: Re: TURTLE alpha status
Posted by Didier on Fri, 07 Feb 2014 15:12:53 GMT
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Hi Mirek,

Turtle works fine now (at least with GraphCtrl) but there are duplicate packages : one in Rainbow and the other one in uppsrc.

I think you forgot to remove in svn the old source when moving it to uppsrc.

In current status, WebWord does not compile (because rainbow/Turtle is outdated)

Subject: Re: TURTLE alpha status
Posted by mirek on Mon, 10 Feb 2014 08:25:12 GMT
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Tom1 wrote on Tue, 04 February 2014 05:33Hi,

Yes, it seems we need:

```
#if defined(PLATFORM_WIN32)
 #ifndef flagTURTLE
  operator const RECT*() const { ASSERT(sizeof(*this) == sizeof(RECT)); return (RECT*)this; }
  operator RECT*()           { ASSERT(sizeof(*this) == sizeof(RECT)); return (RECT*)this; }
  operator RECT&()           { ASSERT(sizeof(*this) == sizeof(RECT)); return *(RECT*)this; }
  operator RECT() const      { RECT r; r.top = top; r.bottom = bottom;
          r.left = left; r.right = right; return r; }
  Rect_(const RECT& rc)      { Set((T)rc.left, (T)rc.top, (T)rc.right, (T)rc.bottom); }
 #endif
#endif
```

or something similar in Core/Gtypes.h.

Best regards,

Tom

That is weird. I believe I have now WebWord working in Win32 (in debug mode, fork issue is still

---

unresolved), but about the only thing I had to fix was DesktopRect issue...

Mirek

Subject: Re: TURTLE alpha status
Posted by Tom1 on Mon, 10 Feb 2014 13:28:23 GMT
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Hi,

This one last problem persists in Core/GTypes.h when compiling with MSC9. However, when I tried with MSC10, everything worked just fine.

I think MSC9 should be kept alive due to the following reasons:

- Recent Microsoft update broke the Windows7 SDK (7.1) and the bundled MSC10, and they have no intention to fix it anymore. (Just need to roll back any relevant updates and re-install SDK and stuff.)

- Max's Protect package only works with MSC9

- MSC9 is the last one to target Windows 2000, if this has any significance to anybody.

Best regards,

Tom

Subject: Re: TURTLE alpha status
Posted by mirek on Tue, 11 Feb 2014 07:07:50 GMT
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OK, so MSC9 is it. Now should be fixed.

Now the central problems remaining to fully useful Turtle are

- some ability to upload data to server (I am afraid somehow the regular "upload dialog" will have to be employed for this particular task).

- clipboard handling. This one is really tough, HTML5 does not really has obvious support for this...

Posted by Tom1 on Tue, 11 Feb 2014 09:11:20 GMT
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Mirek,

The previous font issue on WIN32 popped up again: The package dependency in WebWord to plugin/DroidFonts needs to be conditionalized with 'When: TURTLE && !WIN32' in order to link it successfully. This goes for both MSC9 and MSC10.

(I'm not quite sure why this disappeared and reappeared again..)

Best regards,

Tom

Subject: Re: TURTLE alpha status
Posted by mirek on Tue, 11 Feb 2014 10:02:02 GMT
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Tom1 wrote on Tue, 11 February 2014 04:11Mirek,

The previous font issue on WIN32 popped up again: The package dependency in WebWord to plugin/DroidFonts needs to be conditionalized with 'When: TURTLE && !WIN32' in order to link it successfully. This goes for both MSC9 and MSC10.

(I'm not quite sure why this disappeared and reappeared again..)

Best regards,

Tom

There are some glitches in build system for convoluted cases as TURTLE is, you might want to try rebuild all.

DroidFonts is host platform totally independent source of glyph graphics. It replaces any host platform technology; it happens through

#include "Draw.h"

NAMESPACE_UPP

#ifndef CUSTOM_FONTSYS

in Draw/FontWin32.cpp (and Draw/FontFc.cpp).

Subject: Re: TURTLE alpha status
Posted by Tom1 on Tue, 11 Feb 2014 10:51:54 GMT
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OK, now I got it: I have used TheIDE 5485, while having the source from SVN. Something in the build system has changed since then. With the current TheIDE everything works just as one might expect.

Thanks,

Tom